

WHAT IS CLAIMED IS:

1. A syringe barrel, comprising a flange having a front surface and a rear surface, wherein at least one of the front surface and the rear surface of the flange is roughened.

2. A syringe barrel according to claim 1 for use in an injection apparatus, said  
5 syringe barrel adapted to be mounted on a cylinder holder that comprises a flange insertion groove, wherein said flange is adapted to be held by said flange insertion groove so as to fix the syringe barrel.

3. The syringe barrel according to Claim 1, wherein the front surface of the flange is roughened.

10 4. A syringe barrel according to claim 3 for use in an injection apparatus, said syringe barrel adapted to be mounted on a cylinder holder that comprises a flange insertion groove, wherein said flange is adapted to be held by said flange insertion groove so as to fix the syringe barrel.

5. A cylinder holder comprising a flange insertion groove having at least one  
15 surface for holding a syringe barrel that comprises a flange having a front surface and a rear surface; at least one of the surfaces of the flange insertion groove being roughened, said roughened surface adapted to be contacted with the front surface or the rear surface of the flange.

6. The cylinder holder according to Claim 5, wherein the surface to be contacted  
20 with the front surface of the flange of the syringe barrel is roughened.

7. A syringe piston, comprising a syringe piston rod having a rear end surface that is roughened.

8. A piston holder, comprising a roughened press surface adapted to contact the rear end surface of a syringe piston rod.

25 9. A pre-filled syringe, comprising:  
a syringe comprising a syringe barrel of any of Claims 1 to 4 or a syringe piston of Claim 6; and  
a chemical solution filled in the syringe.

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